1

# In the United States Patent and Trademark Office on Appeal from the Examiner to the Board of Patent Appeals and Interferences

In re application of:

Nathan R. Belk

Serial No.:

10/694,074

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3795

Examiner:

Brian P. Yenke

Title:

AN INTEGRATED CHANNEL FILTER AND METHOD OF

**OPERATION** 

MAIL STOP: APPEAL BRIEF-PATENTS

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

Dear Sir:

## Supplemental to Appeal Brief

# Response to Notification of Non-Compliant Appeal Brief

Appellant has appealed to the Board of Patent Appeals and Interferences from the decision of the Examiner sent December 9, 2008 maintaining the final rejection of Claims 1-8, 10, 11, 26, and 27, which are all pending in this case. Appellant filed a Notice of Appeal on November 13, 2008, and submitted an Appeal Brief, with the statutory fee of \$540.00, on January 9, 2009. Appellant submits this Response in response to the Notification of Non-Compliant Appeal Brief mailed February 12, 2009. Additionally, Appellant attaches a revised Claims Appendix.

# **Table of Contents**

Status of Claims	3
Claims Appendix	5

3

## **Status of Claims**

Claims 1-8, 10, 11, 26, and 27 are pending in this Application and all stand finally rejected under the Office Action sent August 13, 2008. Claim 9 has been canceled, and Claims 12-25 were withdrawn in a Response to Restriction and/or Election Requirement filed June 14, 2006. Appellant notes that the Notice of Panel Decision from Pre-Appeal Brief Review indicates that the panel has rejected Claims 1-8, 10, and 11, but includes no reference to the status of Claims 26 and 27. Appellant will treat Claims 26 and 27 as if they are also pending and finally rejected. Appellant presents all pending claims for appeal. The attached Claims Appendix shows all the claims.

4

### **Conclusion**

Appellant believes that this Response addresses the issues cited in the Notification of Non-Compliant Appeal Brief mailed February 12, 2009. Appellant respectfully requests the Board of Patent Appeals and Interferences to reverse the Examiner's final rejection of the pending claims and instruct the Examiner to issue a notice of allowance of the same.

The Commissioner is authorized to charge any fee and credit any overpayment to Deposit Account No. 02-0384 of Baker Botts L.L.P.

Respectfully submitted,

BAKER BOTTS L.L.P. Attorneys for Appellant

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### **Claims Appendix**

#### 1. (Previously Presented) A system, comprising:

a filter operable to receive an input signal comprising a first number of television channels and further operable to communicate an intermediate output signal comprising a second number of television channels less than the first number of television channels, wherein at least a portion of the filter is formed on an integrated circuit so as to dissipate a plurality of undesired channels associated with the input signal in elements of the integrated circuit such that at least a portion of the undesired signals are not reflected back to a transmitter of the input signal; and

a tuner coupled to the filter and operable to receive the intermediate output signal and further operable to communicate an output signal comprising a third number of television channels less than the second number of television channels, wherein at least a portion of the tuner is formed on the integrated circuit.

2. **(Previously Presented)** The system of Claim 1, wherein: the first number of television channels is greater than one-hundred; the second number of television channels is less than forty; and the third number of television channels is less than three.

#### 3. (Previously Presented) The system of Claim 1, wherein:

the first number of television channels comprises a plurality of bands of channels; and the filter comprises a plurality of stages and is switchable among the plurality of stages to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

## 4. (Previously Presented) The system of Claim 1 wherein:

the first number of television channels comprises a plurality of bands of channels; and the filter comprises a plurality of stages, wherein at least one stage is switchable among a plurality of capacitors to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

5. **(Original)** The system of Claim 1, wherein the filter comprises at least one stage comprising:

an inductor;

- a first capacitor having a first lead and a second lead, wherein the first lead of the first capacitor is coupled to a lead of the inductor; and
- a plurality of capacitors, each of the capacitors having a first lead coupled to the first lead of the first capacitor and a second lead switchably coupled to the second lead of the first capacitor.
- 6. (Original) The system of Claim 5, further comprising a controller coupled to the filter and operable to enable a selected one of the plurality of stages of the filter and further operable to enable selected ones of the capacitors associated with the selected stage.
- 7. **(Original)** The system of Claim 1, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.
- 8. (Original) The system of Claim 1, wherein the filter comprises an input stage of the tuner.

#### 9. (Canceled)

10. (Original) The system of Claim 1, wherein the filter comprises a first filter and further comprising a second filter operable to communicate the input signal to the first filter, the second filter comprising a low-pass filter having an input cutoff frequency higher than 806 MHz.

- 11. (Original) The system of Claim 1, wherein:
- the input signal comprises a differential signal; and the intermediate output signal comprises a differential signal.
- 12. (Withdrawn) A filter for receiving an input signal comprising a first number of channels and for communicating an intermediate output signal comprising a second number of channels less than the first number of channels, the filter comprising a plurality of stages, at least one stage comprising:

an inductor:

- a first capacitor having a first lead and a second lead, wherein the first lead of the first capacitor is coupled to a lead of the inductor; and
- a plurality of capacitors, each of the capacitors having a first lead coupled to the first lead of the first capacitor and a second lead switchably coupled to the second lead of the first capacitor.
- 13. (Withdrawn) The filter of Claim 12, wherein the at least one stage is formed on an integrated circuit.
  - 14. (Withdrawn) The filter of Claim 12, wherein:

the first number of channels comprises a plurality of bands of channels; and the filter is switchable among the plurality of stages to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

15. (Withdrawn) The filter of Claim 12, wherein:

the first number of channels comprises a plurality of bands of channels; and

the at least one stage is switchable among the plurality of capacitors to communicate the intermediate output signal comprising a selected one of the plurality of bands of channels.

- 16. (Withdrawn) The filter of Claim 12, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.
  - 17. **(Withdrawn)** The filter of Claim 12, wherein: the input signal comprises a differential signal; and the intermediate output signal comprises a differential signal.
  - 18. **(Withdrawn)** A method for filtering an input signal, comprising: receiving an input signal comprising a plurality of bands of channels;

switching among a plurality of stages of a filter to communicate an intermediate output signal comprising a selected one of the plurality of bands of channels, wherein the filter is formed on an integrated circuit;

receiving the intermediate output signal; and

communicating an output signal comprising a subset of the channels from the selected band of channels.

- 19. (Withdrawn) The method of Claim 18, wherein switching further comprises switching among a plurality of capacitors associated with a particular one of the plurality of stages.
- 20. (Withdrawn) The method of Claim 18, wherein receiving the intermediate output signal and communicating the output signal are performed at least in part by a tuner and at least a portion of the tuner is formed on the integrated circuit.
- 21. (Withdrawn) The method of Claim 20, wherein the filter comprises an input stage of the tuner.

#### 22. (Withdrawn) The method of Claim 18, wherein:

the input signal comprises a first number of channels;

the intermediate output signal comprises a second number of channels less than the first number of channels; and

the output signal comprises a third number of channels less than the second number of channels.

#### 23. (Withdrawn) The method of Claim 22, wherein:

the first number of channels is greater than one-hundred; the second number of channels is less than forty; and the third number of channels is less than three.

24. (Withdrawn) The method of Claim 18, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.

#### 25. (Withdrawn) The method of Claim 18, wherein:

the input signal comprises a differential signal; and the intermediate output signal comprises a differential signal.

#### 26. (Previously Presented) A system, comprising

first means for receiving an input signal comprising a first number of television channels and for communicating an intermediate output signal comprising a second number of television channels less than the first number of television channels, wherein at least a portion of the first means is formed on an integrated circuit so as to dissipate a plurality of undesired channels associated with the input signal in elements of the integrated circuit such that at least a portion of the undesired signals are not reflected back to a transmitter of the input signal; and

second means for receiving the intermediate output signal and for communicating an output signal comprising a third number of television channels less than the second number of television channels, wherein at least a portion of the second means is formed on the integrated circuit.

27. **(Original)** The system of Claim 26, wherein the input signal comprises a radio frequency signal ranging from 48 MHz to 852 MHz.